# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/853,395 | 05/11/2001 | Geoffrey S. Strongin | 2000.038500/TT3758 | 6433 |

| 23720 | 7590 | 05/20/2005 |
|---|---|---|

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| EXAMINER |
|---|
| NGUYEN, MINH DIEU T |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2137 | |

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
|---|---|---|
| | 09/853,395 | STRONGIN ET AL. |
| **Office Action Summary** | Examiner | Art Unit | |
| | Minh Dieu Nguyen | 2137 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>02 February 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-79</u> is/are pending in the application.

    4a) Of the above claim(s) <u>18,19,23,24,33-58,62,63 and 72-79</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3,8-17,20-22,26-28,32,59-61,65-67 and 71</u> is/are rejected.

7)☒ Claim(s) <u>4-7,25,29-31,64 and 68-70</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

## DETAILED ACTION

### *Response to Amendment*

1.      This action is in response to the communication filed February 02, 2005 with the

affirmation of group I election of claims 1-32 and 59-71 and the cancellation of claims

18-19, 23-24 and 62-63.

Claims 1-17, 20-22, 25-32, 59-61 and 64-71 are pending.

### *Response to Arguments*

2.      Applicant's arguments filed February 02, 2005, with respect to the rejection(s)of

claim(s) 1-17, 20-22, 25-32, 59-61 and 64-71 have been fully considered and are

persuasive.  Therefore, the rejection has been withdrawn.  However, upon further

consideration, a new ground(s) of rejection is made in view of Davis (5,844,986), Bress

et al. (6,813,682), Brant et al. (5,848,435) and Baird, III et al. (6,732,278).

### *Claim Rejections - 35 USC § 103*

3.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.      Claims 1, 8-10, 20, 27-28, 59 and 66-67 are rejected under 35 U.S.C. 103(a) as
being unpatentable over Davis (5,844,986), and further in view of Bress et al.
(6,813,682).

        a)      As to claims 1, 20 and 59, Davis discloses a system comprising a crypto-
processor (Fig. 1, element 34) and a memory (Fig. 1, elements 42, 43) coupled to
receive memory transactions through the crypto-processor. Davis also discloses the
BIOS program is located in a printed circuit board (PCB) plugged into a system
expansion slot, and the crypto-processor may be located on the same PCB or on
another PCB as long as the crypto processor is able to access the BIOS program (col.
4, lines 57-65). Davis discloses transmitting and receiving a request for the memory
transaction at the crypto-processor (col. 3, lines 31-33); determining if the memory
transaction is authorized for the storage location col. 3, lines 61-63).

        Davis does not disclose the memory transactions request are passed to the
memory by the crypto-processor if the memory transacton is authorized for the storage
location.

        Bress discloses the memory transactions are passed to the memory by the
crypto-processor if the request is acceptable (col. 6, lines 3-8).

        It would have been obvious to one of ordinary skill in the art at the time of the
invention to employ the use of passing memory transactions to the memory by the
crypto-processor in the system of Davis, as Bress teaches so as to protect memory
devices.

b)      As to claims 8-10, 27-28 and 66-67, Davis discloses the memory

comprises a ROM (Fig. 1, element 42; element 42 is non volatile memory, ROM and

flash memory are inherent) and wherein the ROM comprises a BIOS ROM (Fig. 1,

element 43).


5.      Claims 2-3, 21-22, 26, 60-61 and 65 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Davis (5,844,986), in view of Bress et al. (6,813,682).and

further in view of Brant et al. (5,848,435).

Davis and Bress do not disclose the crypto-processor includes a memory

permission table that maps at least a portion of the memory and wherein the crypto-

processor is configured to pass the memory transactions to the memory if and only if

the memory access is indicated as allowed by the memory permission table.

Brant discloses the crypto-processor includes a memory permission table (col. 2,

lines 49-50; Fig. 3) that maps at least a portion of the memory (col. 5, lines 65-67 to col.

6, lines 10) and wherein the crypto-processor is configured to pass the memory

transactions to the memory if and only if the memory access is indicated as allowed by

the memory permission table (col. 2, lines 50-56; col. 6, lines 38-65).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to employ the use of including a memory permission table that maps at least a

portion of the memory and configuring the processor to pass the memory transactions

to the memory if and only if the memory access is indicated as allowed by the memory

permission table in the system of Davis and Bress, as Brant teaches so as to further

protect the memory.


6.      Claims 11-17, 32 and 71 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Davis (5,844,986), in view of Bress et al. (6,813,682), in view of Brant

et al. (5,848,435) and further in view of Baird, III et al. (6,732,278).

        a)      As to claims 11, 14, 32 and 71, Davis and Bress do not disclose the

crypto-processor and the memory are integrated into a protected storage device, the

protected storage device comprising one or more storage areas; logic for controlling

access to the one or more storage areas; a random number generator; and a secret.

        Brant discloses the protected storage device comprising one or more storage

areas (Fig. 1, elements 5&6), logic for controlling access to the one or more storage

areas (Fig. 1, element 7), wherein the method further comprising receiving the request,

verifying the authorization using the logic and the secret, and passing the request for

the memory transaction an appropriate one of the one or more storage areas.

        It would have been obvious to one of ordinary skill in the art at the time of the

invention to employ the use of protected storage device comprising one or more storage

areas; logic for controlling access to the one or more storage areas; a random number

generator in the system of Davis and Bress, as Brant teaches so as to securely protect

resources.

        However Brant does not disclose a random number generator and a secret,

Brant discloses verifying the authorization using the logic, not the secret.

Baird discloses a random number generator (col. 10, lines 16-29) and a secret

(see addressed claim 6) and verifying the authorization using the secret (Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to employ the use of a random number generator as Baird teaches, in the

system of Davis, Bress and Brant so as to provide secure access to resource.

f)      As to claims 12 and 15, Baird discloses the system wherein the one or

more storage areas comprises a data storage and a code storage (col. 5, lines 61-62).

g)      As to claims 13 and 16-17, Baird discloses the system wherein the secret

is comprised within the code storage and wherein the memory further includes a secret

(Fig. 4).


### *Allowable Subject Matter*

7.      Claims 4-7, 25, 29-31, 64 and 68-70 are objected to as being dependent upon a

rejected base claim, but would be allowable if rewritten in independent form including all

of the limitations of the base claim and any intervening claims.


### *Conclusion*

8.      Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Minh Dieu Nguyen whose telephone number is 571-272-

3873. The examiner can normally be reached on M-F 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number

for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 571-272-

2100.

Minh Dieu Nguyen
Examiner
Art Unit 2137

mdn
5/13/05

**ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER**